## IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of driving an organic light emitting diode display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the method comprising:

receiving image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

factorising said image matrix into a product of at least a first factor matrix and a second factor matrix, said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix; and

driving said display row and column electrodes using said row and column drive signals respectively defined by said first and second factor matrices, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, wherein said factorising comprises non-negative matrix factorisation (NMF), and

wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

2. (Original) A method as claimed in claim 1 wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes.

3. (Previously Presented) A method as claimed in claim 1, wherein said driving comprises driving said display with successive sets of said row and column signals to build up a display image, each said set of signals defining a subframe of said display image, said subframes combining to define said display image.

4. (Original) A method as claimed in claim 3 wherein a number of said subframes is no greater than the smaller of a number of said row electrodes and a number of said column electrodes.

5. (Original) A method as claimed in claim 4 wherein said number of subframes is less than the smaller of a number of said row electrodes and a number of said column electrodes.

6. (Previously Presented) A method as claimed in claim 3, wherein said first factor matrix has dimensions determined by a number of said row electrodes and a number of said subframes, and wherein said second factor matrix has dimensions determined by a number of said column electrodes and said number of subframes.

7. (Currently Amended) A method of driving an organic light emitting diode display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the method comprising:

receiving image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

factorising said image matrix into a product of at least a first factor matrix and a second factor matrix, said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix; and

driving said display row and column electrodes using said row and column drive signals respectively defined by said first and second factor matrices, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, wherein said first and second factor matrices are configured such that a peak pixel brightness of said display is reduced compared with a row-by-row driving of said display using said image data, and wherein said factorising comprises non-negative matrix factorisation (NMF), and

wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

8 – 14. (Canceled)

15. (Currently Amended) A method of driving an organic light emitting diode display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the method comprising:

receiving image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

factorising said image matrix into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix, said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display, wherein said image matrix comprises an $m$ x $n$ (row x column) matrix **I** and said first and second factor matrices respectively comprise an $m$ x $p$ (row x column) matrix **W** and a $p$ x $n$ (row x column) matrix **H** where $p$ is less than or equal to the smallest of $n$ and $m$ and where $\mathbf{I} \approx \mathbf{W}.\mathbf{H}$; and

driving said display row and column electrodes using said row and column drive signals respectively defined by said first and second factor matrices, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, wherein said factorising comprises non-negative matrix factorisation (NMF), and

wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

16. (Previously Presented) A method as claimed in claim 1, wherein said display comprises a multicolour display, each said pixel of which comprises subpixels of at least a green colour and a

second colour, wherein said image data includes colour data defining green and second colour channels for driving said green and second colour subpixels, and wherein said image matrix factorising includes weighting said green colour channel with a greater weight than said second colour channel such that said green channel is displayed on average more accurately than said second colour channel.

17. (Original) A method as claimed in claim 16 further comprising scaling said colour data for said green and second colour channels by respective first and second weights prior to said factorisation, and wherein said second weight is less than said first weight.

18. (Previously Presented) A method as claimed in claim 16 wherein said second colour is red and wherein each said pixel further comprises a blue subpixel; wherein said colour data includes data for a blue colour channel; and wherein said factorising includes weighting said green colour channel with a greater weight than said red and blue colour channels.

19 - 21. (Canceled)

22. (Currently Amended) A non-transitory carrier medium carrying a processor control code for receiving image data for display by an organic light emitting display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~; factorising said image matrix into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix, said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display; and driving said display row and column electrodes using said row and column drive signals respectively defined by said first and second factor matrices, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, wherein said factorising comprises non-negative matrix factorisation, and

wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

23. (Currently Amended) A driver for an emissive display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the driver comprising;

an input for receiving image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

a system for factorising said image matrix into a product of at least a first factor matrix and a second factor matrix, said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix; and

output means to output said row and column drive signals respectively defined by said first and second factor matrices, said outputting for driving a pixel using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, and wherein all the elements of said first and second factor matrices are equal to or greater than zero and when said display is driven by said drive signals a plurality of said row electrodes is driven in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

24. (Currently Amended) A method of driving an organic light emitting diode display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the method comprising:

receiving image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

formatting said image data ~~in said image matrix~~ into a plurality of subframes, each said subframe comprising data for driving a plurality of said row electrodes simultaneously with a plurality of said column electrodes; and

driving said row and column electrodes with said subframe data, wherein said subframe data driving said row and column electrodes comprises only positive or zero data,

wherein said formatting comprises compressing said image data into said plurality of subframes, and

wherein said compressing comprises non-negative matrix factorisation (NMF), said non-negative matrix factorisation comprising factorising said image data into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

25. (Canceled)

26. (Previously Presented) A method as claimed in claim 24 wherein said display comprises a multicolour display, wherein said image data comprises colour image data, and wherein said compressing comprises compressing data for a green colour channel of said display less than data for at least one of a red and a blue colour channel of said display.

27. (Previously Presented) A method as claimed in claim 24, wherein said formatting is configured to generate subframe data such that data from more than one said subframe enables driving a pixel of said display, whereby more than one said subframe contributes to an apparent brightness of pixels of the display.

28-29. (Canceled)

30. (Currently Amended) A method of driving an organic light emitting diode display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the method comprising:

receiving image data for display, said image data defining an image matrix in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display, wherein said image data comprises an $m$ x $n$ (row x column) matrix **I**, wherein $m$ is the number of rows and $n$ is the number of columns of said display, and wherein said NMF determines a first $m$ x $p$ (row x column) matrix **W** and a $p$ x $n$ (row x column) matrix **H** where $p$ is less than or equal to the smallest of $n$ and $m$, and wherein $\mathbf{I} \approx \mathbf{W.H}$;

formatting said image data in said image matrix into a plurality of subframes, each said subframe comprising data for driving a plurality of said row electrodes simultaneously with a plurality of said column electrodes; and

driving said row and column electrodes with said subframe data, wherein said subframe data driving said row and column electrodes comprises only positive or zero data,

wherein said formatting comprises compressing said image data into said plurality of subframes, and

wherein said compressing comprises non-negative matrix factorisation (NMF) and wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

31. (Previously Presented) A method as claimed in claim 24, wherein said display comprises a passive matrix organic light emitting diode display.

32. (Canceled)

33. (Currently Amended) A non-transitory carrier medium carrying processor control code for

receiving image data for display by an organic light emitting diode display~~, said image data defining an image matrix in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

formatting said image data ~~in said image matrix~~ into a plurality of subframes, each said subframe comprising data for driving a plurality of said row electrodes simultaneously with a plurality of said column electrodes; and

driving said row and column electrodes with said subframe data, wherein said subframe data driving said row and column electrodes comprises only positive or zero data, and

wherein said formatting comprises non-negative matrix factorisation (NMF), said non-negative matrix factorisation comprising factorising said image data into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second matrix, and wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

34. (Currently Amended) A driver for an emissive display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the driver comprising:

an input to receive image data for display~~, said image data defining an image matrix in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

a system for formatting said image data ~~in said image matrix~~ into a plurality of subframes, each said subframe comprising data for driving a plurality of said row electrodes simultaneously with a plurality of said column electrodes, said formatting comprising factorising said image data into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix; and

an output to output said subframe data for driving said row and column electrodes, and

wherein said subframe data driving said row and column electrodes comprises only positive or zero data, and wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

35. (Currently Amended) A driver for an emissive display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the driver comprising:

an input to receive image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

an output to provide data for driving said row and column electrodes of said display;

data memory to store said image data;

program memory storing processor implementable instructions; and

a processor coupled to said input, to said output, to said data memory and to said program memory to load and implement said instructions, said instructions comprising instructions for controlling the processor to:

input said image data;

factorise said image matrix into a product of at least first and second factor matrices said first factor matrix defining row drive signals for said display, said second factor matrix defining column drive signals for said display, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix; and

output said row and column drive signals respectively defined by said first and second factor matrices, said driving comprising driving a said pixel of said display using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second factor matrix, and

wherein all the elements of said first and second factor matrices are equal to or greater than zero and wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.

36. (Currently Amended) A driver for an emissive display, the display having a plurality of pixels each addressable by a row electrode and a column electrode, the driver comprising:

an input to receive image data for display, said image data defining an image matrix ~~in which rows and columns of the image matrix correspond to rows and columns of image pixels of the display~~;

an output to provide data for driving said row and column electrodes of said display; data memory to store said image data;

program memory storing processor implementable instructions; and

a processor coupled to said input, to said output, to said data memory and to said program memory to load and implement said instructions, said instructions comprising instructions for controlling the processor to:

input said image data;

format said image data into a plurality of subframes, each said subframe comprising data for driving a plurality of said row electrodes simultaneously with a plurality of said column electrodes, said formatting comprising factorising said image data into a product of at least a first factor matrix and a second factor matrix, wherein said factorising comprises calculating values of said first factor matrix and calculating values of said second factor matrix; and

output said subframe data for driving said row and column electrodes, said outputting for driving a pixel using a said row drive signal defined by said first factor matrix and simultaneously a said column drive signal defined by said second matrix, and wherein said subframe driving said row and column electrodes comprises only positive or zero data, and wherein said driving comprises driving a plurality of said row electrodes in combination with a plurality of said column electrodes to thereby build up a luminescence profile over a plurality of row scan periods.